# INFORMATION HOTLINE

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formerly INFORMATION NEWS AND SOURCES

MARCH 1976

#### INFORMATION RESEARCH GRANTS

(official summaries of new NSF-funded projects begin on page 23)

Test and Evaluation of Public Service Uses of Cable Television for Senior Citizens

Research on Productivity Measurement Systems for Administrative Services: Computing and Information Services

Uses of Technology to Enhance Education

Effects of On-Line Search Services on Chemists Information Style

The Economic Characteristics of Information Analysis Centers

MIT Natural Gas Policy Model

A Study on Privacy Aspects of Computerized Personal Data Systems

Investigating Computational Gains Using Partial Information

Review of the Published Literature Concerned with the Effects of Climate and Weather on Human Behavior

Electronic, Scientific, and Technical Communication Test Facility

Documentation of the Revolution in Astrophysics and a History of Contemporary Cosmology

Alternates in Energy Conservation: The Use of Earth Covered Buildings

## NSF FY 1977 BUDGET LACKS INCREASE FOR SCIENCE INFORMATION ACTIVITIES while

an \$80.4 million increase in overall National Science Foundation budget authority (11% above FY 1976) is aimed primarily at strengthening federal support of basic research in all major fields of

Science information activities for FY 1977 are budgeted at the same \$6 million allocated in FY 1976. This subactivity stimulates and supports efforts to improve accessibility and use of scientific and technical information. Although no increase in total funding is sought, \$200,000 will be reallocated from the program's applied research support to stimulate increased basic research on the process of information transfer. A total of \$812 million, \$802 in new funds and \$10 million in proposed FY 1976 deferrals, is included in the FY 1977 budget.

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BURCHINAL URGES.U.S. TO "REJECT ANY NOTIONS OF DEVELOPING A NATIONAL PLAN FOR INTEGRATING OR COORDINATING OUR DIVERSE STI OR ANY OTHER

DISSEMINATION EFFORTS" In a statement defined as a personal view which should not be interpreted as representing implied or contemplated official policies by the National Science Foundation or any other executive office, Lee G. Burchinal, head of NSF's Office of Science Information Service went on to say, "The models of Unesco, USSR, United Kingdom, West Germany or Japan simply are not applicable to the U.S. scene. We have a healthy and well-founded skepticism of national planning. Moreover, our information resources are so rich and diverse and changing so rapidly as to defy any form of systematic structuring. Furthermore, antitrust laws simply prohibit cooperative arrangements among commercial organizations."

In an effort to stimulate further analyses of public STI policies, Burchinal suggested that the US "should apply its creative genius to developing our own approach to combining private and federal resources for assuring effective access to available information. We should not be surprised if our approach also becomes unique in the world. In certain critical and fundamental ways the U.S. is unique. Private sector activities dominate our (continued on page 4)

ECONOMICS OF JOURNAL PUBLISHING AS A VIABLE MEDIUM TO COMMUNICATE SCHOLARLY AND RESEARCH

INFORMATION has been examined in the first comprehensive and statistically significant study of its type. Bernard M. Fry, Dean, Graduate Library School, Indiana University, has been principal investigator of this study effort funded by a National Science Foundation grant. Herbert S. White participated in the analysis of data and in writing the report, the purpose of which is to examine the economics of publisher/library interaction. Data covering the period 1969-1973 were collected for analysis and interpretation of the separate and interdependent problems of librarians and publishers. (continued on page 17)

See page 17 for reprint of findings and recommendations of the report.

### WORLD'S MOST POWERFUL COMMUNICATIONS TECHNOLOGY SATELLITE

LAUNCHED from Cape Canaveral, Florida, on January 17 as the culmination of five years of cooperation between NASA and Canada's Department of Communications in an experimental program to pioneer new methods of providing communication services. The CTS incorporates new technology that will make possible television reception and two-way voice communication with the use of small, user-operated ground terminals. High satellite power will allow experimenters to conduct a multitude of communication service demonstrations with a modest investment in ground receiving equipment. This communications capability is particularly attractive in remote areas of the US and Canada where terrestrial communications are not highly developed. Such techniques also have considerable potential for most developing countries.

The CTS is the second satellite designed to transmit high-quality color television to small, simple ground stations. The other is the Applications Technology Satellite-6 (ATS-6), launched in May 1974 and now being used by the government of India to relay educational programs to thousands of isolated villages before resuming broadcasts to the US. ATS-6 achieves its high power by use of a 9-meter (30-foot) reflector antenna; CTS, by means of a very highpower (200 watts) transmitter. CTS will be stationed over the equator at an altitude of about 36,000 kilometers (22,300 miles) at 116 degrees west longitude, just west of South America. This position will permit a wide variety of unique experiments to be performed, both in the US and Canada, that will demonstrate and encourage new satellite applications. Both nations will share equally in experiment time during the satellite's expected (continued on page 4)

#### SPECIAL FEATURE

OFFICIAL U.S. PROJECT DESCRIPTIONS FOR CTS EXPERIMENTAL PROGRAM

and

HISTORICAL SUMMARY OF COMMUNICATIONS SATELLITE DEVELOPMENT

(see page 6)



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